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IN THE CLAIMS:

Please consider the claims as follows:

1. (currently amended) An interleaver of optical channels, comprising:
an input Y-branch coupler having a first output and a second output;
a first phase shifter which input is coupled to the first output of the Y-
branch coupler;
a second phase shifter which input is coupled to the second output of the
Y-branch coupler;
a first multi-sectional coupler having:
a first input coupled to an output of the first phase shifter;
a second input coupled to an output of the second phase shifter;
a first output coupled to an input of the third phase shifter; and
a second output coupled to an input of the fourth phase shifter; and
a second multi-sectional coupler having:
a first input coupled to an output of the third phase shifter;
a second input coupled to an output of the fourth phase shifter;
a first output for a first group of the optical channels; and
a second output for a second group of the optical channels.
~~comprising at least one input port and at least two branches; and~~
~~at least two multi-section optical couplers optically coupled to said input~~
~~coupler.~~
2. (cancelled)
3. (currently amended) The interleaver of claim 1, wherein each of said multi-
section optical couplers comprises a chain including three optical couplers where
adjacent couplers are coupled using waveguides each selectively providing a
pre-determined phase shift. ~~each comprise: at least three substantially similar~~
~~optical couplers, adjacent ones of said optical couplers interconnected via at~~

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~~least one set of waveguides, each of said sets of waveguides comprising a path length difference between the waveguides therein.~~

4. (currently amended) The interleaver of claim 1, wherein the input Y-branch optical coupler splits power of an input optical signal between a first output and a second output in a pre-determined ratio, ~~equally among the at least two branches, said at least two branches optically coupled to a first of said at least two multi-section optical couplers, and wherein at least two waveguides optically couple the first of said at least two multi-section optical couplers to a second of said at least two multi-section optical couplers.~~

5-8. (cancelled)

9. (currently amended) The interleaver of claim 1, wherein said interleaver is an integrated onto a planar lightwave circuit.

10-29. (cancelled)

30. (new) The interleaver of claim 1, wherein each of said phase shifters is a controlled thermo-optic heater.

31. (new) The interleaver of claim 3, wherein in the multi-sectional coupler:
one optical waveguide couples a first output of a first optical coupler to a first input of a second optical coupler;
another optical waveguide couples a second output of a first optical coupler to a second input of a second optical coupler;
yet another optical waveguide couples a first output of a second optical coupler to a first input of a third optical coupler; and
still another optical waveguide couples a second output of a second optical coupler to a second input of a third optical coupler.

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32. (new) The interleaver of claim 3, wherein each of said optical couplers is selected from the group consisting of an evanescent coupler and an adiabatic coupler.

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